rainfall during the storm at Beloit, Wisconsin, is reported over six inches, and at Belvidere. Illinois, nearly four inches. On the 10th at 5:30 p. m. at Las Cruces, New Mexico, a waterspout suddenly appeared in the hills one mile back of the town toward the north, and passed over the town as a tall, dark column of water and dust, destroying buildings, &c., in less than ten minutes. The water in the streets was from four to five feet deep, and two hours later rain commeced and fell in torrents for several hours. One report of this disaster says. "It was midnight before the flood abated, and this morning our town, which was vesterday one of the most flourishing in the Southwest, stands a mass of ruins sad to contemplate. It is impossible to estimate the value of property destroyed." On the night of the 9th a tornado spent its fury on Normal, Illinois, where two gales seemed to converge, demolishing a large brick house and severely injuring one person. Other buildings and barns were demolished, and at King's Mill, a few miles west of Bloomington, the storm cut a track through a maple grove, twisting and uprooting the trees. At Clinton one man was killed by lightning, and at La Fayette cars were blown off the track. On the 10th gales were reported at Newport Barracks, Kentucky; Milford, Delaware; Depauville, New York; Weldon, North Carolina; Carthagena, Ohio; West Charlotte, Vermont; on the 11th at Atlanta, Georgia; on the 16th at Atlanta, Georgia, and Carthagena, Ohio; on the 17th at Gardiner, Maine, and Brashear, Louisiana; on the 18th at Florida and Fall River, Massachusetts; on the 25th at Ringgold, Ohio; on the 2.3th at Carthagena, Ohio; and on the 30th at Florida, Massachusetts. During the night of the 18th and morning of the 19th Charleston, S.C., was visited by a heavy rain and wind storm, doing damage to trees, &c. On the 15th at 5:30 p. m. a heavy rain and hail storm, with high wind, passed over St. Authory and Minneapolis, Minnesota. On the afternoon of the 21st a severe storm of wind, hail and rain was reported from the southwestern portion of New Mexico, extending from Bear Creek canon, beyond the upper Mimbres, breaking down the largest trees and carrying them high in the air, the wind denuding the earth of every hing. Hail-stones as large as cups fell and covered the mountains, looking at a distance like snow; some stones are described as weighing over a pound. On the 24th a storm of hail, sleet and snow, was also reported from Santa Fé, N. M. On the 30th a severe wind storm passed near Fort Madison, Iowa, blowing down fences, unroofing houses, &c

## TEMPERATURE OF THE AIR.

The distribution of mean temperatures for the month is indicated by the isothermal lines on chart.

No. I. The temperature table on the same chart gives the average for the various districts for the month, together with the average for September during a long series of years. The comparison shows that the weather has been cooler than usual in all the districts, and most particularly so in the St. Lawrence valley. This excess of cold is largely due, in the northern sections, to the areas of unusually high barometric pressure which have crossed the country, and, in the southern, to the prevailing northerly winds induced by the storms in the Gulf. The following are a few of the maximum temperatures of the month: Corsicana. Texas, 100°; Jacksonville, Fla., 98°; Augusta, Ga., Dodge City, Kan., and Montg mery, Ala., 97°; Shreveport, La., and Tybee, Ga., 96°; Indianola and Denison, Texas, and Wilmington, N. C., 95°. The minimum temperatures for the month occurred at the following stations: Mt. Washington, 15°; Pike's Peak, 17°; Pembina, Dak., 21°; Colorado Springs, Col., 27°; Cheyenne, W. T., and Breckenridge, Minn., 28°; Bismarck, Dak., 29°; Marquette, Mich., 30°; Wytheville, Va., and Yankton, Dak., 30°; Escanaba. Mioh., North Platte, Neb., and Burlington, Vt., The

greatest range of temperature was 68° at Pembina, Dak., from 89° to 21°, and the least 20° at Key West, from 93° to 73°.

Frosts.—Light frosts occurred on the 10th in Minnesota; on the 11th in Iowa, Wisconsin, Michigan, Illinois, Indiana. Ohio Pennsylvania, New York, New Jersey, and all of the New England States; on the 12th in New York and New England. Heavy and destructive frosts occurred on the 17th in Minnesota and on the 18th throughout the Northwest and the Upper Lake region, and lighter frosts on the same date in the Lower Lake region, the Middle States and New England. Late corn and other crops suffered severely at this time in many portions of these districts. From the 18th to the 26th inclusive frosts, more or less severe, were frequent in all that portion of the United States lying north of the 38th parallel. Light frost was reported from the vicinity of Vicksburg on the 19th, and from the mountainous regions of Virginia. Tennessee and the Carolinas, on the 27th and 28th.

## PRECIPITATION.

Chart No. III shows, in a graphic manner, the monthly distribution of the rain-fall. The table upon the same, giving the average by districts, furnishes the means of comparing it with the average for many years. The rain-fall has been unusully heavy in the Gulf States, and particularly so in Texas and Louisiana, where more than double the normal quantity has fallen. A large excess is also given for the St. Lawrence valley. The deficiency of rain has been noticeably great in the Middle and South Atlantic States and in portions of the Ohio valley, Missouri, Kansas and Minnesota. In the remaining districts the amount of rain does not differ widely from the average for September.

Among the heavy rain-falls for the month may be noticed the following: Galveston, 18.41; Mt. Washington, 11.54; Key West, 10.60; Indianola, 10.65; Jackson, Miss., 8.54; Mobile, 8.52; Baton Rouge, La., 8.07; Shreveport, La., 8.02. At Galveston the rain-fall amounted to over six inches on two different days—the 16th and 25th.

Snow.—Snow fell on Pike's Peak on twelve days during the month. The first snow of the season fell on the 17th in the Adirondacks; on the 19th at Pembina, Dubuque and Oswego; 21st, at Denver and Escanaba; 22d, at Malone, N. Y., and on the 24th, at Santa Fé, N. M.

Hail.—Hail frequently fell with the snow on Pike's Peak during the month. Local hail-storms have also occurred as follows: 5th, at Houseville, N. Y.; 15th, at Minneapolis. Minn.; 19th, on Lake Erie and at Dubuque, Iowa; 20th, at La Crosse, Malone, Milwaukee, Marquette, Duluth, Traverse City, Mich., and Brownsville, Pa.; 21st, at Port Huron and Marquette; 22d. Bangor, Me., and Madison Barracks, N. Y.; 24th, at Santa Fé; 26th, at Wytheville, Va.; 30th, Buffalo, Fort Abercrombie, Dak; Rockford, Iowa; Danville, Ky., and Norfolk, Neb.

Rainy Days.—The number of days during the month on which rain in any quantity fell averages about as follows: New England, the Northwest and the Southern States, 10; Middle Atlantic States, Tennessee and the Ohio and Central Mississippi valleys, 7; Lake region, 13.

Cloudy Days.—The number of cloudy days (other than those on which rain fell) averages, in New England, 4; Middle Atlantic and Southern States and Lower Lake region, 3; the Ohio valley and the Northwest, 3.5; Upper Lake region, 4.5.